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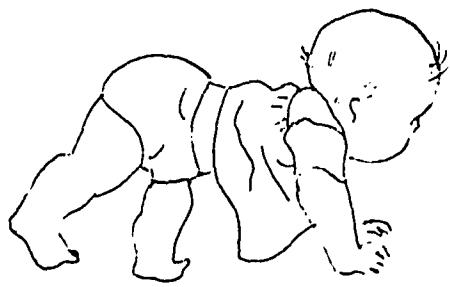
ABSTRACT

Learning in infancy is based on activity, beginnings, and curiosity, the so-called ABC's. Earliest behavior consists of mass activity, the period from birth to 24 months of sensory-motor development which provides the foundation for all future learning. Adults must provide space, toys, and affectionate care to help infants proceed through successive stages of learning experience. These are divided into separate periods: birth to 4 months, 4 to 8 months, 8 to 12 months, 12 to 18 months, and 18 to 24 months. Individual differences occur from birth, and the development of a sense of basic trust is important. This is followed by autonomy in the toddler and his sense of success. Sexual identity and language formation, and the establishment of limits are other kinds of beginning behavior. A baby's curiosity focuses on the newness of his world, and demands patience from parents as well as provisions of space and toys. The first two years are critical because motivation or enthusiasm for learning, along with emotional, social, and intellectual development can either be nourished or blighted. This makes child care a challenging opportunity. (LH)

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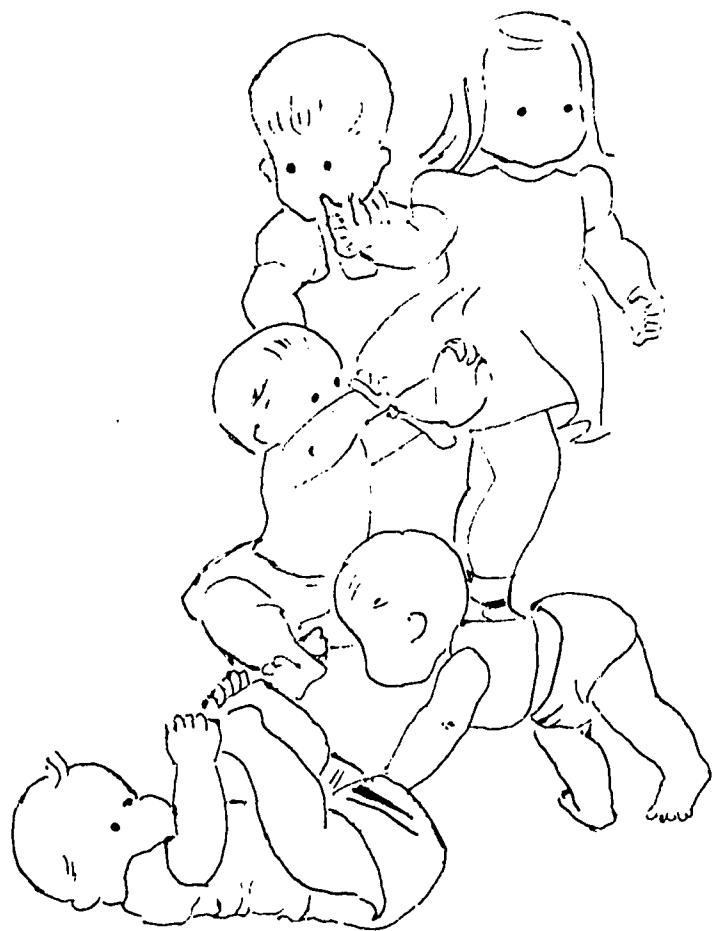
**the ABC's of
LEARNING
in INFANCY**

by

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A IS FOR ACTIVITY

--- The newborn

The brand new infant's earliest behavior consists of mass activity. When he lets out a loud and vigorous cry his whole body seems to move at once. In a few minutes he may be serenely quiet again, sucking, and gazing contentedly about him. His body comes "equipped"

for activity. Essentially he integrates two kinds of activity: the activity of his senses - his looking, hearing, tasting, touching, smelling, and even the sensations from his own body - with the ~~mass~~ activity of bodily movements which become more directed and better controlled as he grows and develops. He turns his head from side to side, reaches, rolls over, sits, crawls, and finally stands and walks. These integrated activities of his senses and body movement set the stage for much of the learning that goes on in infancy. Dr. Jean Piaget has labeled this period from birth to 24 months "the sensory-motor period." It is the important developmental period which provides the foundation for all future learning.

To help infants to learn, adults must observe what infants can do and like to do, and then adults must provide space, toys, and affectionate care so that infants proceed through successive "stages" with success and pleasure in their learning experiences.

--- 0 to four months

For example, the 0 to 4 month old infant can move his head from side to side, and if placed on his stomach can lift his head and look about. He learns to follow a moving object with his eyes,

and he may turn his head in the direction of a sound. He may roll over from stomach to back, and from back to stomach. He likes the contact comfort of being held and rocked, and research shows that the sight of a human face and the sound of a human voice are responded to longer than other sights or sounds. Adults smile and talk to babies, and babies learn to smile and coo and babble. According to psycholinguists, this kind of early social interaction is crucial to the later development of language.

--- 4 to 8 months

From 4 to 8 months the infant can combine more and more of his sensory-motor activity. He combines sitting (at first propped up, and then alone) with looking and listening; he combines looking with sucking. He can reach for things and he puts everything in his mouth in order to feel, to taste, to smell. His eye-hand coordination becomes increasingly controlled. Not only can he grasp a rattle, but he can swing it, shake it, or pound it. The baby begins to "play." This means the adults must provide interesting objects to pick up and examine and explore and must also provide play space and equipment so that the infant can "practice" reaching, pulling, sitting, crawling, etc. A baby needs room to learn to manage his body in space.

--- 8 to 12 months

For the 8 to 12 month old infant who is crawling, there are many more objects available to him, things he can get into as well as enjoy playing with. He may be pulling himself to a standing position. The world looks very different when one is standing up, and it is a difficult and tremendous achievement to learn this new control of one's body in space. Some infants may even be walking before age one.

From 8 to 12 months the infant is learning about himself as a "person." This means learning to separate the "me" from the "not me." The baby is also learning to recognize objects, and, even more importantly, people. He smiles at his mother and father and other familiar people, but he may show some reluctance in the presence of a strange person. This may be the age when the baby first reacts negatively to being left with someone unfamiliar. It is important for parents to understand the basis for this reluctance, especially if at this age they are planning to leave their baby with a stranger in any situation --- with a baby-sitter, at Sunday School, or in a day care arrangement. The rejection of a strange adult by an infant at this

age indicates that the baby's learning has reached an important developmental stage --- i.e., he can discriminate the familiar from the strange. When he shows uneasiness in adjusting to unfamiliar places and persons, he should be given the help he needs to adjust comfortably and without too much distress.

--- 12 to 18 months

From 12 to 18 months is the age when the infant is beginning to deal with what Dr. Piaget calls "object permanence." At this age as the baby perceives it, when an object (a person) disappears it is as if it ceases to exist. This can be observed if the parent or caregiver hides a small toy under a sofa pillow. The young infant will not search for the toy because if it is out of sight it no longer exists for him. It may be many months before he will search, i.e., before he learns that objects have a permanent existence. This is another reason why many young infants protest vigorously when their mothers leave. Particularly if a baby is also aware that the person he is left with is a stranger, he will be doubly distressed. He needs time to become familiar with his new caregiver; he needs reassurance that even though his mother disappears,

she is surely coming back. Perhaps at first the mother should leave her baby with a new caregiver for only a brief time. If the baby is unhappy he will not have to cry or be upset for long. As the baby becomes more familiar and comfortable with his new caregiver, and as he learns that his mother does come back, the mother can increase the length of time she leaves him.

--- 18 to 24 months

From 18 to 24 months a child is aptly labeled a toddler, or runabout. His walking has become more skillful. In fact, he seems to be running everywhere at once. There is so much to see and do! He has developed good prehension (ability to grasp with thumb and forefinger in opposition), and he picks up the tiniest objects. His muscle development is such that he climbs, pulls, and pushes. He can push chairs and other objects around, and this enables him to reach and scale wondrous heights. While we want to encourage his learning, we must at the same time protect him from his own adventuresome self and from dangerous situations. Everything from pocketbooks to pantry shelves must be secured for safety.

The toddler becomes interested in means-ends relationships. He asks "what's this?" and "why?" Selma Fraiberg tells us these are the magic years when the young child thinks he makes things happen. He snaps the switch and light comes on. He beats his mother's pots and pans with a stirring spoon and he makes those wonderful crashing noises. He tries to take things apart and put them back together again.



B IS FOR BEGINNINGS

--- Babies are different even at birth

Learning in infancy is not confined to motor and mental development. A baby is also developing emotionally and socially. From before birth, each child is in the process of becoming a unique personality. To begin at the beginning to understand personality we have to start with conception, when inherited characteristics begin their interaction in a prenatal uterine environment. Each infant is different, not

only in observable characteristics such as hair color, eye color, muscle tone, height, weight, et cetera, but also in the behavior he displays. Some babies from birth are more highly activated, more sensitive to loud noises, more restless, more subject to colic, while others from birth are less active, more cuddly, sounder sleepers. Many a mother has reported that one of her babies loved to be rocked while another squirmed and resisted being held. These differences and the parents' reactions to them combine to produce different personalities. Mothers have different personalities too. A "cuddly baby" may be born to a mother who doesn't especially enjoy baby care; or a mother who would love to have a cuddly baby may be dismayed with her infant who apparently doesn't enjoy being held.

--- basic trust comes first

Most mother-infant pairs learn to adjust to and to respond to each other's cues. When the mother learns what the baby's cries mean, and she responds sensitively to his need for attention --- for food, warmth, smiles, and social interaction --- the infant comes to view his world as a very secure place. A prominent personality theorist, Dr. Erik Erikson, emphasizes the importance of developing "a sense of basic trust" in infancy. If adults make the surroundings safe and secure for growth and for learning about the world, the infant is freed to act on his environment and to maximize his learning. A child learns from all the ways he is responded to, from the ways he is

talked to, smiled at, cared for, handled, whether his world is safe and can be trusted. Some babies learn only that it is a frightening world, one not to be trusted, and they become immobilized, fearful, and anxious.

--- the toddler begins to test his wings

If the infant develops a sense of basic trust he is then able to move easily into a second stage which Erikson labels "autonomy." Becoming autonomous means putting aside the dependency of earlier infancy --- at least some of the time. When the toddler begins "to have a mind of his own," this often signals the onset of battles between parents and child. Adults who care for toddlers need to understand this age as a time when the toddler is just beginning to test his wings. At one minute he is refusing to let his mother help with putting his coat on, the next minute he is asking to be held and rocked. The toddler is torn between asserting himself and being independent on the one hand, and on the other hand being very unsure of his powers and his real desires. He needs to be assured that when his boldness and venturesomeness frighten even himself, there is someone who sets limits, who tolerates his getting a few bumps but who is always there to avoid serious injury; someone who comforts when he is tired, who tolerates his unreasonable demands; someone who is willing frequently to let him determine when he will be the autonomous person and when he wants to return to the dependency of infancy.

--- success is important from the very beginning

As infants and toddlers learn to use their own bodies and to develop skills in language, in eating table foods, in toilet training, and in playing with other children, it is important to provide the kind of experiences which will guarantee a measure of success. These tasks of childhood are mastered by different children at different ages and at different rates. We need to remember that children develop differently: some tasks are harder for one child, other tasks may be easier. Allowing flexibility to progress at one's own rate helps each child experience more successes than failures. Even in infancy success is its own reward. The more a baby accomplishes, the more he wants to try and do. Dr. Robert W. White calls this developing a sense of competence, and he sees competence as an important factor in healthy personality development.

If the child can be autonomous in a safe world, if he feels competent, if he is permitted some initiative and choice where it is appropriate (do you want a book or a teddy bear to take to bed?), he develops a sense of his own worth. He develops the feeling that he is special, that he can cope with his world and has some control over it, that who he is and what he does makes a difference. A good concept of self or a poor concept of self is learned from all of one's experiences. This is true, even in infancy and toddlerhood.

--- am I a boy or a girl?

Dr. Sigmund Freud was one of the first theorists to write of the great importance of early childhood experience for all later personality development. He stressed the need for children to learn to love and admire the parent of the same sex as themselves. For example, little girls want to be like their mothers, and little boys learn to be like their fathers. Our society helps in this process by defining toys, hair-dos, clothes, and activities as appropriate for each. Toddlers of course do not adhere to any fine distinctions: doll play or housekeeping play is equally appropriate for boys and girls, and climbing is as appropriate for girls as for boys. There is so much to learn about both sex roles that the toddler should be free to imitate and play without concern about what is "only" for boys or "just" for girls. Adults do label, however, and so set the stage for later learning: we say, "what a pretty little girl you are," and tell little boys "how handsome" they look.

--- language begins in infancy

Another remarkable aspect of learning is evidenced in the 12 to 18 month old child. For many months the adult has been talking to the infant, attaching labels to objects and actions. The infant "understands" many, many words long before he can say them. It is important to continue to say to the 12 month old, e.g. "we're going for a ride," and

"let's put on your coat and hat." These referents help him to "make sense out of" what words and actions mean. Consistency between words and actions also make it easier for the infant to learn. He learns to anticipate: he learns what follows what. When we say "let's get in your high chair and put on your bib," he gets excited and anticipates that "lunch is on the way" even before it comes. As adults, we can observe this exciting kind of learning. His one and two word vocabulary will show a rapid increase.

Adults are the most effective models for a child's language. The more clearly and carefully adults use language with children, the greater will be the chances for learning to speak well. Most adults "teach" children spontaneously, but those who are labeled "teachers" are very careful to talk with children even in routine activity. The toddler quickly learns rudimentary and fundamental concepts: "Put the picture book on the shelf;" "Your truck rolled under the table;" "That is a big block - this is a little one."

Research has shown that culturally disadvantaged children have difficulty in first grade because they have not had sufficient experience of this kind with language as infants and toddlers.

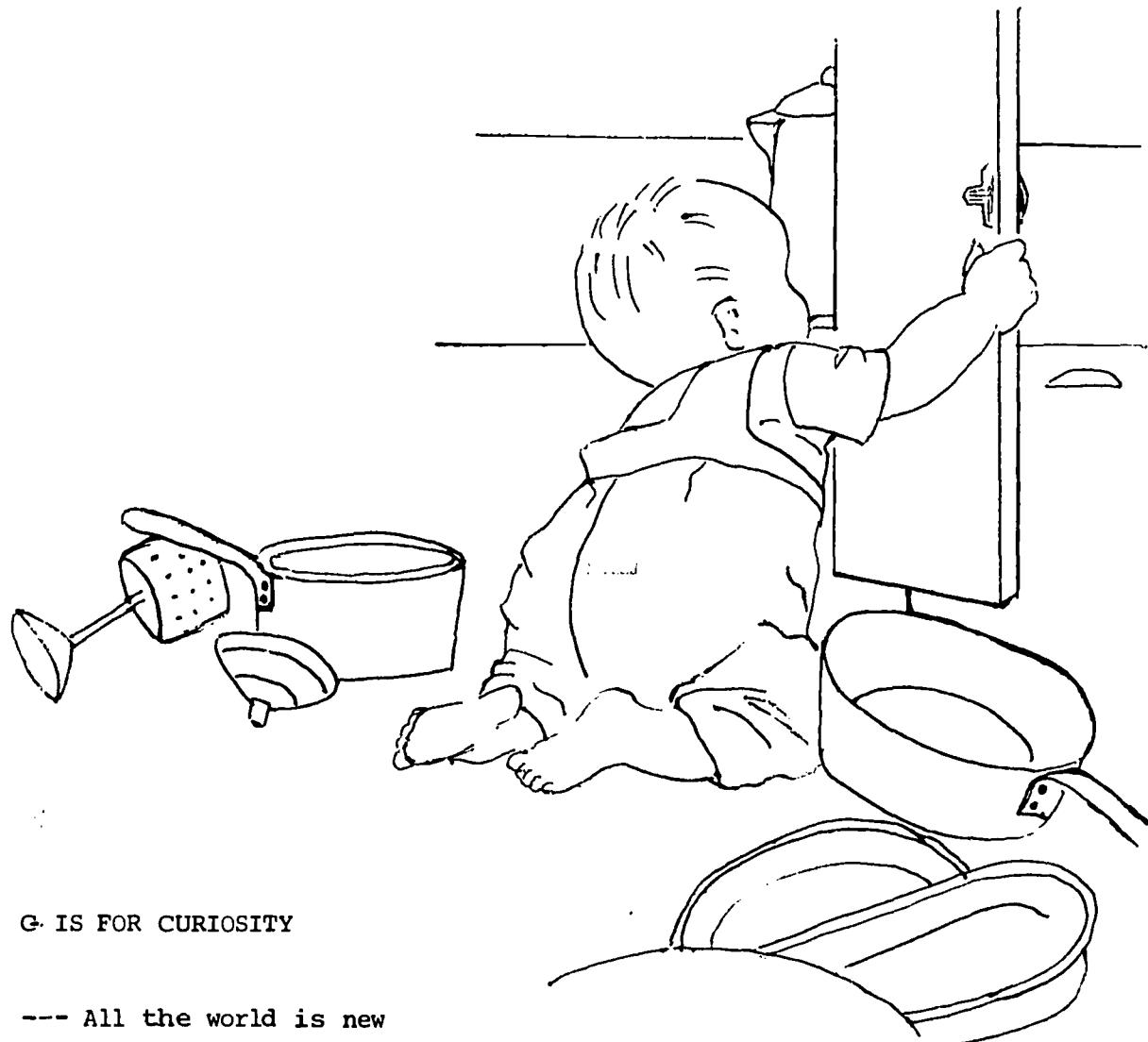
--- even in the beginning there are limits

Toddlers do things that distress adults, and adults have a responsibility to teach even very young children that there are limits, that there are some things that we cannot permit them to do. In most cases such limits are for the child's safety. Sometimes, however, they are set for the adult's comfort and convenience. And often they are set for other children's safety and well-being. When we think a child is "naughty" or "being bad," a good rule of thumb is to try to interpret what the "bad" behavior means to the child. A good example is biting.

Biting, when viewed by adults, is a socially unacceptable behavior. However, just as the infant sucks on objects he puts in his mouth, he also bites on them. His biting teaches him still more about the properties of things. The toddler may learn that biting also gets for him a toy that another child has. And perhaps what is even more attractive, it causes adults to pay lots of attention to him and to what he is doing. If we view biting as part of the very young child's total learning, adults can understand better how to cope with the biting that so often occurs when infants and toddlers are in groups. A caring adult can help the child by dealing quietly and calmly with the behavior. Making a to-do and getting excited or angry increases the possibility that the biter will bite again to create more stir and to be the center of attention again. It is

important to be firm and to let the child know that he does not have the adult's approval when he bites. At the same time it is important to suggest alternative ways of helping toddlers resolve frustration. A perceptive adult will always be available to a group of infants to intervene in situations that are too complex or too full of frustration for children to handle. Most toys cannot be divided two ways, but an adult can provide an alternative attractive toy, or even produce two of a kind before the frustrated toddler has to employ some less-than-acceptable behavior in order to get what he wants.

It is not easy for parents and other care-giving adults to know what they can do to insure healthy personality development. Each child is individual and unique. Each child is "exceptional." But all children need gentleness, firmness, kindness, warmth, acceptance, and freedom to become a person or an individual. This applies not only in infancy and toddlerhood but throughout our adult lives as well.



G IS FOR CURIOSITY

--- All the world is new

An infant is born with a drive to explore his world. He explores objects visually and reaches out to touch and taste the properties of objects. For the infant and the toddler, there is so much that is new, so much to be curious about. If the infant develops a sense of basic trust in his environment, then he can feel it is safe to explore, and he is challenged by new experiences. If the adults around him reward him with smiles and praise when he investigates and makes new discoveries, he learns that adults approve his exploration, and this increases the

probability that he will continue to be curious. He will take things apart to see how they work. He will open cabinets and drawers and pull out the contents. He will ask "why" and "what's this?" He will push, pound, and mouth objects to discover what they are like.

--- patience is the price

As the child grows his natural need to explore will certainly tax the adult's patience. But "patience" is a small price to pay for the discovery that learning is exciting and pleasant. If a baby gets "No-No's" and frowns and scolding too much of the time he will conclude that it is safer not to be curious, and some of the joy of learning will be lost. If his needs to explore are frustrated too often he may lose interest in his environment. He may stop learning to learn and this will have undesirable consequences to his future motivation and learning.

--- exploring requires space and toys

An infant's curiosity demands space and equipment in his surroundings and this means such different things as crawling space on the kitchen floor, with access to pots and pans, or a playroom filled with educational toys. Even more important is an adult whose attitudes tell the infant or the toddler that he is a real little person, that what he is doing is important, and that someone who cares about him shares his pleasure in what he is doing and learning.

At about 12 months a baby may begin to throw his toys about. Although this is annoying to adults, because it often looks destructive, for the baby it is his first lessons in physics. At first the baby

is apparently enjoying the sheer act of letting go, but then his interest seems to shift to something more than just the act of throwing or dropping. He watches the toy in motion and watches its path as it moves through space. He is interested in the novelty of dropping things and watching them fall. He notices where things fall and the different noises different objects make when they land. In his play he seems to be interested in making new discoveries about what old and familiar toys can do.

By 18 to 24 months the toddler combines his well-developed motor skills and rapidly developing language skills to become an "inventor" and "experimenter." For example, he may have developed enough motor skill to take a top off of a container. As he tries to fill the container he may try to force something in that does not fit. With the help of an adult and language he may label this relationship - the block is too big to fit into the little container.

The toddler is curious about objects, situations, and people. Piaget has said that the more a child sees and hears, the more he wants to see and hear. During this stage he can do more and more things. When novelty and curiosity are so exciting to him, adults can provide a wide range of materials, space, and situations to capitalize on his spontaneous and joyous interest in learning. The toddler loves to swing, to play in sand and water, to go on walks, to look at picture books, to listen to rhymes and songs. Although they are not quite ready to play together except briefly, toddlers enjoy being with and watching other toddlers.

The toddler likes to follow his mother (or any adult) about and "help" her with her housework. There is so much to investigate, to learn about: "What is it?," and "What does it do?"

--- learning is exciting

The curious infant or toddler who is encouraged and rewarded for being curious will find satisfactions and pleasure in all kinds of learning. These experiences provide built-in interest in future learning experiences and a real zest for life. The child who is encouraged to explore, to be curious, to ask questions as a toddler learns the basic principle that "learning is exciting and rewarding." This foundation helps to insure positive attitudes and habits necessary for later success in school performance and social adjustment.

--- the rewards are substantial

Many psychologists believe the first two years are "critical years" because motivation or enthusiasm for learning as well as emotional, social, and intellectual development can either be nourished in these two years or be blighted. This dictum need not create uneasiness or panic in parents and teachers. On the contrary, it elevates what some might view as the monotonous routine of child care to the importance it deserves. Dr. Mary Elizabeth Keister says that "daily care and affectionate caring are the proper curriculum for babies." Even the simplest and most ordinary aspects of child care become challenging opportunities to enhance the growth and development of an infant. The ABC's of learning in infancy provide an easy first lesson in enjoying babyhood and making earliest childhood a delight for all who share in it.

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